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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,836	11/25/2002	Allan Joseph Kotwicki	201-0304	9702

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EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT PAPER NUMBER

2859

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,836

Applicant(s)

KOTWICKI, ALLAN JOSEPH

Examiner

Gail Verbitsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Dotan (U.S. 6250802).

Dotan discloses in Fig. 4 a temperature sensor comprising a temperature sensing element (thermistor) 32 encapsulated (thermistor bead) positioned in a plastic heat conductive capsule of an epoxy resin /matrix comprising conductive particles.

3. Claims 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Salera.

Salera discloses in Fig. 7 a temperature sensor comprising a thermistor bead 17, an electrical insulator (inner coating of low thermal diffusivity/ conductivity) 16 which is an epoxy resin (col. 1, line 54), a heat conductive (metallic) tip (outer coating of high thermal diffusivity/ conductivity) 11 on top of the electrical insulation 16.

Claim Rejections - 35 USC § 103

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dotan.

Dotan discloses in Fig. 4 a temperature sensor comprising a temperature sensing element (thermistor) 32 encapsulated (thermistor bead) positioned in a plastic heat conductive capsule of an epoxy resin /matrix comprising conductive particles.

With respect to the preamble of claim 7: the preamble of the claims does not provide enough patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

6. Claims 3-4, 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dotan in view of Lin (U.S. 4581158).

Dotan discloses the device as stated above in paragraph 2.

Dotan does not explicitly state that the particles are metal/ aluminum.

Lin discloses a conductive thermosetting composition/ coating comprising a polymeric (non metal) particles/ filler (abstract) or aluminum (col. 5, line 56) particles/ filler dispersed in a plasticisol (resin matrix).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the thermally conductive coating disclosed by Dotan, with the thermally conductive coating, as taught by Lin, because both of them are thermally conductive materials which will perform the same function of conducting heat from an object of interest to the thermistor bead, if one is replaced with the another.

7. Claims 1-11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salera (U.S. 4166451) in view of Lin.

Salera discloses in Fig. 7 a temperature sensor comprising a thermistor bead 17, an electrical insulator 16, a heat conductive (metallic) tip (coating) 11 on top of the electrical insulation 16.

For claim 15: Salera discloses in Fig. 7 a temperature sensor comprising a thermistor bead 17, an electrical insulator (inner coating of low thermal diffusivity/ conductivity) 16 which is an epoxy resin (col. 1, line 54), a heat conductive (metallic) tip (outer coating of high thermal diffusivity/ conductivity) 11 on top of the electrical insulation 16.

Salera does not explicitly teach that the heat conductive coating comprises thermally conductive particles in a resin matrix.

Lin discloses a conductive thermosetting composition comprising a polymeric (non metal) particles/ filler (abstract) or aluminum (col. 5, line 56) particles/ filler dispersed in a plasticisol (resin matrix).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the thermally conductive coating disclosed by Salera, with the thermally conductive coating, as taught by Lin, because both of them are thermally conductive materials which will perform the same function of conducting heat from an object of interest to the thermistor bead, if one is replaced with the another.

With respect to the preamble of claim 7: With respect to the preamble of claim 7: the preamble of the claims does not provide enough patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

8. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salera.

Salera discloses in Fig. 7 a temperature sensor comprising a thermistor bead 17, an electrical insulator (inner coating of low thermal diffusivity/ conductivity) 16 which is an epoxy resin (col. 1, line 54), a heat conductive (metallic) tip (outer coating of high thermal diffusivity/ conductivity) 11 on top of the electrical insulation 16.

Salera does not explicitly the particular thickness of the inner and outer coatings.

With respect to claims 16-17: the particular thickness/ size of inner and outer coatings, i.e., 0.001 to 0.05 mm and 0.1 to 1 mm respectively, absent any criticality, is only considered to be the optimum value of the thickness of the inner and outer coatings

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disclosed by Salera that a person having ordinary skill in the art would have been able to determine using routine experimentation based among other things on the desired accuracy of the device, etc. In re Boesch, 205 USPQ 215 (CCPA 1980). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, disclosed by Salera, so as to make the inner and outer coatings of thickness of 0.001 to 0.005 and 0.1 to 1mm respectively, so as to provide the necessary thermal conduction, electrical insulation to satisfy the desired accuracy of the device.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (703) 306-5473 Monday through Friday 8:00 to 4:00 ET.

Any inquiry of general nature should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

GKV

Gail Verbitsky

Patent Examiner, TC 2800



September 03, 2003